Menlo Park Notebook #123 [N-80-08-17]

This notebook covers the period August 1880. Most of the entries are by William J. Hammer. There are also a few entries by Francis Jehl. The book contains notes, along with a few drawings, relating to tests of experimental lamps. The label on the front cover is marked "Hammer" and "Experimental Lamps." There is an index on the inside front cover. The book contains 284 numbered pages.

Blank pages not filmed: 26-35, 40-197, 200-269, 272-279.

Page	Lamp	Page	Lamp	Page	Lamp
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2			Experimental Lamps		
3	1421	13			
also 11	1424				
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3	1427	13	420		
also 15	1384				
5	1395	13	311		
5	1428	15	484		
also 11	1380				
7	1360	15	468		
also 11	1435	15	1384		
7	1420	15	334		
7	1406				
9	1433	15	1331		
9	1410	17	1422		
		18	1415		
also 3	1424	19	1437		
also 7	1435				
also 5	1380				
13	931				
13	802 Ledgebar no No				
13	776				
13	754				

1

Experimental Lamps
EDISONS LABORATORY.

"Experimental Lamps on Pump Line."

1421. 48 Candles, shunt of 117 - 22 Ohms.
Put up on pump line Aug 17-1880 - 10.55 A.M.
Carbon slightly curved and clamped the new way. Just stole out - 4 hours 10 min.

1424. 48-Candles, Shunt of 108 - 20 Ohms.
Put up on pump line Aug 17-1880 at 11.00 A.M. Carbon nearly straight, was clamped the new way. Broke just above the shank at 3.30 P.M. having lasted - 3 Hours 30 min - Globe discolored

1382. 48-Candles, Shunt of 57 - 10 Ohms
Put on pump line Aug 17-1880, at 11.50 A.M. Carbon slightly curved & broke 3/4 ways up. was of old style clamping Lasted = 1 Hour 45 min. - Globe discolored

1427. 32 Candles, Shunt of 87 - 16 Ohms
Put on pump line Aug 17-1880, at 11.12 A.M. Carbon slightly bent & broke half way up. Burning lasted to 2.15 P.M
- - 2 Hours 13 min.

"Experimental Lamps on Pump Line"

1384. 48 Candles Shunt of 8 ft 16 Ohms.
Put on pump line Aug 17-1880. 11.05 A.M.
Carbon (but considerably after being
up a couple of hours, was clamped
in the old way. taken down by order T.A.E.
at 9.15 - lasted 8 Hours. 10 min

1395. 48 Candles, Shunt of 7 ft-14 Ohms
Put on pump line Aug 17-1880, at
11.05 A.M. Carbon slightly bent, broke
half way up, Carbon clamped in the old
way, inside of globe quite discolored
broke at 2.18 P.M. Burning lasted 2 Hours 13 min

1428. 32 Candles, Shunt of 8 ft 16 Ohms
Put on pump line Aug 17-1880, at
11.10 A.M. Carbon slight bent both ways
broke about half way up, was clamped
the new way, went out 3.10 P.M. burning
lasted 3 Hours.

1380. 32 Candles, Shunt of 10 ft-
20 Ohms, Put on Pump Line Aug
17-1880. at 11.15 A.M. Carbon slighly bent
was clamped in the old way, Carbon broke
just above shoulder, Aug 18-80 at 8.10 lasted 11 hr 55 min
burning
good vacuum

"Experimental Lamps on Pump Line".

1360. 32 Candles, Shunt of 11 Ft-22 Ohms, Put on pump line Aug 17 at 11.15 A.M. Carbon curved much more after being up a couple of hours, in fact till it touched the glass making a blister and making the inside incandescent about 1.30 P.M. The carbon broke at point of curved and split nearly the way up. Lasted 1 Hour-35 Min.

1435. 32 Candles. Shunt of 15 Ft-30 Ohms, Put on pump line Aug 17-80 at 11.30 A.M. Bulb made of German glass, Carbon perfectly straight clamped in new way. Carbon broke near shank, at 8 A.M. Aug 17. Good volume. Lasted 11.30

1420. 32 Candles, Shunt of 15 Ft-30 Ohms, Put on pump line Aug. 17-1880. at 11.30 A.M. There was a slight spot on carbon half way up at which point it broke at 2.50 P.M. Having lasted 2 Hours 20 min, new way of clamping.

1406. 32 Candles, Shunt of 15 Ft-36 Ohms, Put on pump line Aug 17-1880, 11.30 A.M. Carbon clamped in old way. broke, at 3.30 P.M. I think there was an arc at clamp, glass was broken where the wire is sealed in, It Lasted - 3 Hours. -

All these lamps had a fair vacuum T.A.E.

1433. 48 candles. Shunt of 3.24-6 ohms
Put on pump line Aug 17-1880, at 11.30 A.M., Carbon broke just above the shank, at 1.45 P.M. Having lasted 1 Hour 15 min, Clamped in the new way

1410. 32 Candles. No Shunt
Put on pump line Aug 17-80 at 11.37 A.M. Lamp burst at 11.48 A.M. having lasted but 11 min do not know which way carbon was clamped

Picking out the good lamp's according to George

1404 48 Candles 210 minutes

48 candles 105

48 Candles still on

this lamp was taken off by order of T.A.E. 133

448

112

1435 32 candles still on broke after 11.30

1380 32 candles still on " " " 11.55

32 candles " "

32 " " 180

915

~~No 2[illegible] Glass which burn~~

~~Fair vacuum~~

No 331 Fair vacuum (glass around the clamp)

No 802 Poor vacuum (glass not around the wires)

Lead glass Moderate vacuum (glass not around the wires)

No 176 Fair vacuum (glass around the wires)

No 754 Fair vacuum (no glass around the wires)

No 803 Fair vacuum (glass not around the wires)

Depot-lamp { Very high vacuum
glass around the
platina wire

No 248 — Good vacuum (glass not on wires)

{ Lead glass Very good vac,
No 420 White lead (glass around the wires)

No 311. good vacuum
glass around the wires

~~No 483 Poor vacuum.~~

484 high vacuum
white lead glass.

glass about the wires.

465 good vacuum
glass not around the wires.

1384 good vacuum
This lamp was taken off the pump line + broken to test-by T.A.E.
No glass around the wires.

No 334 quite high ~~good~~ old lamp. vacuum
glass around the wires
Has burnt 14000 hours

No 1331 good vacuum
taken from pump line

No 1422 Hung on pump line at 7.15 P.M. Aug 17-1880. taken off the near curve Aug 18-80 8.25 A.M. running lasted 6-10 min

Very high vacuum as it was sealed off when the engine stopped for all night.

No 1445

20=32 Eve 7.22 5

13 ft for 22 C

~~[illegible]~~

Good Carbon

Put up on pump line.
7.40 P.M. Aug 18-80
The lamp arced at the clamp, and broke at 8.40 Having lasted

1 Hour

The lamp was pressed into a pellet which dropped down into the point of the lamp. Shortening it noticed a pellet of platinum on the shank of the carbon, which broke only on one side

No 1437

Carbon slightly bent

It required five feet for to make it 32 C.M.7

~~Eve 7 for~~ E.227 R228

Put on the pump-line at 8.45 P.M., Aug 18-80

There was not a bit blue at the clamps. Went at 11.

Lasted 3.45

broke half way up the side.

No: 1441

Marked Low Carbon
Carbon bent and
bright spot at eye of
The clamps.
five feet to make 132C

EM 7, 1 2 6 2. 227R

This clamp broke off
clamp after being up
but a few minutes.
Aug. 18-30.

No 1442

Carbon Slightly bent
Wanted 15 ft for 32C
228L 228R.
Clamped the new
mgs put on pump
line —

No 1443

Good Carbon.

Required 8 ft for 32 C

Ell W7. 229 R 229 S

Bad spot at the Clamp

8 feet for 32

E. M. 7. 230.

carbon slightly bad

clamp at the same may

have on the springs

No 1399

Carbon Bad

It required 15 ft for 32 C

Ell (7) 229.

bad upon springs

holding of clamp

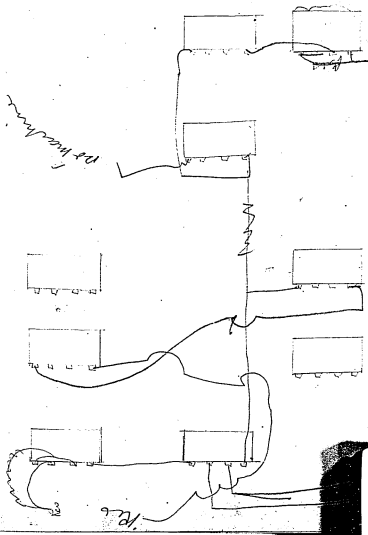
No 1396.–

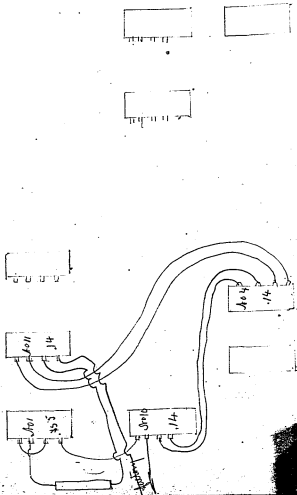
Carbon broke half
way up, burned about 1/2 hour
Noticed that almost 1-
all of these experimental
lamps are considerably dis-
colored on the inside even
though used a short time.

Old way of charging.

No 1446

Hung on pump line
Carbon nearly burnt out.


Pa's bed/wc
Pa's


J14
J14
J14
J14

365
365
365
401
2087

25
8.
200.
5
1000

47. -2.

470
300
14,1000.

14000

1000.

10

1450
100
20
1520

48

47
4
188.

47- 1000.

47.

8. 80

$2\frac{1}{2}$

20.

40
10
400.

24.
300
7200.

12
40
480.

300

30
20

1250
300
25
5
125 / 375,000
10
1250
187.
5
935
750
250
300
750,00
1685
11.00
1.10
5
25.
1000
1200
500
27.00
3/4
5
11.00
1.20 - 75
35,000
3.30 - 45
3000
11.15 - 27
1/2
5
1.20
5
1685
350
280
2315
1.00 - 42